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ABSTRACT

One of 33 self-paced instructional modules for training industry services leaders, this module contains three sequential learning activities on assisting in providing pre-employment and inplant training in an industry services program. (Industry services are manpower services provided by public agencies to new or expanding private industries.) The first learning activity is designed to provide the learner with the needed background information on pre-employment and inplant training: Characteristics, objectives, preparation, training methods, difficulties, special considerations, and evaluation. The second learning activity provides for application of the information in a practice situation, and a final checkout activity allows the learner to assist in providing pre-employment and inplant training in a real work situation, such as when employed or when serving as an intern learner. Feedback devices (learner self-test and performance checklist) are included for use by the learner and instructor/supervisor to assess progress. Case study information, a time table for inplant training, an instructor's task breakdown sheet, and a planning worksheet are appended for guidance in performing the objectives. (This module is one of three in the set which deal with monitoring training programs.) (JT)

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CE 011 402

MODULE NUMBER X-A

ASSISTING IN PROVIDING PRE-EMPLOYMENT AND IN-PLANT TRAINING

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SELF-PACED
INSTRUCTIONAL MODULE

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INSTRUCTIONAL PROCEDURE

This module contains two sequential learning activities and a final check-out activity. A brief overview precedes each learning activity and the final check-out activity. Each learning activity and the final check-out activity provide learning experiences to help you accomplish the objectives. Feedback devices (learner self-test, worksheets, and performance checklists) are provided to help you determine when each objective has been accomplished.

The first learning activity is designed to provide you with the needed **background information**. The second learning activity is designed to give you an opportunity to apply that information in a **practice** situation. The **Check-Out Activity** is the final learning activity. It is designed to allow you to assist in providing pre-employment and in-plant training in a real work situation, such as when you are employed or when you are serving as an intern learner. The **Performance Checklist** in Appendix A-1 is used by the learner and the instructor/supervisor to assess progress in a practice situation. The **Performance Checklist** in Appendix A-2 is designed to be used in the real work situation.

After reading the **Objectives** and the **Introduction** on page 3, you should be able to determine how much of this module you will need to complete before the **Check-Out Activity**.

* If you already have the necessary **background information** required for assisting in providing pre-employment and in-plant training, you may not need to complete **Learning Activity I**, p. 4.
* If you already have had **practice** in assisting in providing pre-employment and in-plant training, you may not need to complete **Learning Activity II**, p. 21.
* Instead, with the approval of your instructor or supervisor, you may choose to proceed directly to the **Check-Out Activity**, p. 22, and assist in providing pre-employment and in-plant training when you have access to a **real work situation**.

Your instructor or supervisor may be contacted if you have any difficulty with directions, or in assessing your progress at any time.

SUPPLEMENTARY TEACHING/LEARNING AIDS

An effort has been made to make this module as self-contained as possible. The information contained in the module should be sufficient to develop "entry-level" knowledge and skills. However, much more has been written on this topic. The advanced learner may wish to attain higher levels of knowledge and skills.

A list of resources which supplement those contained within the module follows. Check with your instructor or supervisor (1) to determine the availability and the location of these resources, and (2) to get assistance in setting up additional learning activities.

There are no prerequisites for completing this module. However, the module may be used in conjunction with the following modules: module number VIII-A, **Conducting a Task Analysis**; module number VIII-C, **Determining Types of Instructional Methods and Media**; module number VIII-D, **Developing Performance Tests**; module number VIII-G, **Setting Up Learning Centers for Industry Services Programs**; and module number IX, **Developing a Plan for Testing and Counseling Applicants for a Training Program.**

Learning Activity I

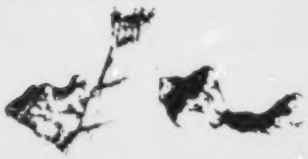
* Broadwell, Martin M. **The Supervisor and On-the-Job Training**. Reading, Massachusetts 01867: Addison-Wesley Publishing Company, Inc., 1975.
* Phillips, Ron, and Stone, Gary. **Instructor Training Guide for Business and Industry**. Mississippi State, Mississippi 39762: Research and Curriculum Unit for Vocational-Technical Education, Drawer DX, 1975.

Learning Activity II

* (Same references as in Learning Activity I)

Check-Out Activity

* Client company representative
* Employment service counselor
* Training institution counselor
* Administrator of vocational-technical education



OBJECTIVES

I. After completing the required reading, take the learner self-test to demonstrate you have attained the knowledge of assisting in providing pre-employment and in-plant training. You should complete all items correctly. **(Learning Activity I)**

II. After analyzing the performance instructions, complete all the designated experiences in assisting in providing pre-employment and in-plant training in a practice situation. Your work must conform to the worksheet and checklist provided. **(Learning Activity II)**

III. In an actual work situation, assist in providing pre-employment and in-plant training for an industry services program. Satisfactory performance will be realized when all items on the performance checklist (Appendix A-2) are rated "yes." **(Check-Out Activity)**

ASSISTING IN PROVIDING PRE-EMPLOYMENT AND IN-PLANT TRAINING

INTRODUCTION

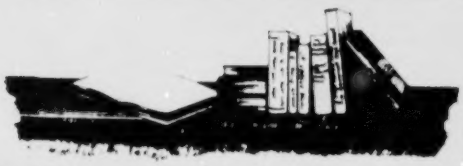
The choice industry has for pre-employment and in-plant training is whether job information will be accidentally learned or deliberately presented by carefully selected and trained instructors/supervisors. Permitting training to occur by the "pick up" method is costly in terms of manufacturing, worker disinterest, and accidents.

Pre-employment training will be provided only once for a particular group. However, in-plant training is a recurring need. Production start-up activities seldom run smoothly without interruptions and downtime. This often can be traced to worker learning problems. Changes in plant methods and worker turnover are other reasons for recurring in-plant training needs.

Training needs may come in many forms, from a few minutes or hours required for a "shakedown" of an employee on a simple, repetitive job, to three months or years of training required to teach a highly skilled trade. However, two factors are held in common for any training need. First, the supervisor must be able to effectively present detailed information on tasks and responsibilities in industry. Secondly, the supervisor must be able to give

attention to the particular characteristics, experiences, abilities, and desires of the learners/workers.

Although the industry services leader will not normally be charged with the responsibility for providing in-plant training, he/she should be prepared to provide expert **guidance** and **assistance** in preparing for and conducting pre-employment and in-plant training activities when the need arises. This module is designed to prepare the industry services leader for such a role. The module is written as if the industry services leader were the supervisor (instructor) in charge of learning activities.



LEARNING ACTIVITY I: INFORMATION

You should study the information presented on the following pages. You may wish to read supplementary information from the resources cited in the section on **Supplementary Teaching/Learning Aids**. After reading these materials, you will demonstrate knowledge of assisting in providing training by completing the **Learner Self-Test**, p. 15 . You will be evaluating your knowledge by comparing your self-test answers with the **Answers to Self-Test**, p. 19.

I. TERMS UNIQUE TO MODULE

A. **Conveyor system**. A system for moving parts and supplies to workers for machining, assembling, and testing.

B. **Employee shakedown**. The initial period of intensive training and practice. A check-out of the ability of the worker to adapt to the motion and rhythm required for task performance.

C. **In-plant training**. Training activities which are provided by a supervisor for employed persons at the work station, using actual production tools and equipment. Also covers vestibule training which is provided in a special area separate from the work station.

D. **Job bid**. To seek a job vacated by another worker, or to seek a new job created because of manufacturing developments or expansion.

E. **Motion patterns**. The proper manual action (eyes, hands, arms, and feet) required by the worker to successfully complete a task.

F. **One-on-one training**. One supervisor teaching one person at a time.

G. **Pick-up method**. Performance steps which are learned without the benefit of detailed instructions regarding the proper methods of performance.

H. **Production downtime**. Time in which workers and machines are idle.

I. **Supervisor**. The individual in charge of managing learning and production activities.

II. EXAMPLES OF OBJECTIVES OF A PRE-EMPLOYMENT TRAINING PROGRAM

A. **To broaden employment opportunities for individuals in the community by providing a program to train people for employment**

B. **To familiarize program participants with the processes, product flow, terminology, tools, equipment, materials, and job requirements of the industry**

C. **To provide opportunities for people to explore jobs in the industry without first leaving their present job**

D. **To provide opportunities for program participants to develop entry-level skills for the industry**

E. **To provide opportunities for each participant to develop an awareness of the importance of safety, housekeeping, and quality control and an understanding of how these things relate to personal well-being and production efficiency in the industry.**

F. **To provide opportunities for each participant to develop an awareness and understanding of the importance of teamwork and interdependence among departments in the industry.**

G. **To assist each individual with the development of self-confidence, pride in his/her work, loyalty to the prospective employer, and the ability to work harmoniously with prospective workers**

H. To provide the industry with a source of personnel who possess appropriate interests, aptitudes, abilities, and entry-level skills to start production in the industry with a minimum cost, effort, and turnover of personnel

III. EXAMPLES OF OBJECTIVES OF AN IN-PLANT TRAINING PROGRAM

A. To assist the employees in meeting quality and quantity production requirements as soon as possible

B. To create safe working conditions around workers and machines

C. To obtain harmony and unity in purpose among fellow employees

IV. CHARACTERISTICS OF PRE-EMPLOYMENT AND IN-PLANT TRAINING

A. During in-plant instruction, training is usually provided one-on-one at any time training is needed. In pre-employment training, much of the instruction will likely be conducted on a group basis.

B. Training is provided by the supervisor at the job site during in-plant training. Pre-employment training is usually conducted at a public training institution.

C. Training is provided on the equipment used in production during in-plant training. Heavy production equipment is often not used during pre-employment training.

V. PREPARING FOR PRE-EMPLOYMENT AND IN-PLANT TRAINING

A. **Develop a training time schedule.** The training time schedule should pinpoint **who** will be trained, for **which** job, and by **what** date. Refer to Appendix B for a sample chart to use. List tasks or topics across the top of the chart and list employee names down the left-hand side. Indicate dates that tasks or topics should be completed, and the actual completion dates in the blocks. Use a diagonal line

to separate the dates.

B. **Break down the tasks or topics into important steps, and indicate the skills to be practiced by the worker. Also note safety and knowledge requirements. A sample task breakdown form is shown in Appendix C.**

C. **Identify observable and measurable standards of performance for each task or topic.** These may be time and motion standards, finished product standards, or knowledge standards. These standards will form the basis for evaluating learning progress.

D. **Prepare the materials to be used during instruction.**

E. **Supply the work station with the proper equipment, tools, and supplies.**

F. **Arrange equipment, tools, and supplies at the work station for demonstration and practice of the tasks. If possible, sketch the steps in performing the tasks, and post the sketches at the work station.**

VI. CONDUCTING PRE-EMPLOYMENT AND IN-PLANT TRAINING

A. **Prepare the learner/worker for instruction.** Assist in removing fears and doubts about the training. State the objectives of the training and tie the tasks or topics into previous knowledge and experiences of the learner/worker. Avoid providing instruction if the learner/worker already knows how to perform the tasks.

B. **Describe how knowledge and skills will be learned.** Demonstrate the steps involved in performing tasks. Tell and show the learner/worker one step at a time. Provide clear, complete instructions. Ask the learner/worker to recall information and steps presented. For clarity in instruction, make certain the learner/worker is positioned so that every aspect of the demonstrations can be viewed and instructions can be heard. As a final check-out before permitting the learner/worker to practice a task, have the learner/worker repeat orally the steps in performing the task.

C. **Permit learner/worker to practice the tasks with supervision.** Obtain accuracy initially and speed later. Correct improper procedures by asking questions and providing additional instructions.

D. **Permit learner/worker to practice tasks without supervision.** Explain expectations regarding output and quality. Designate who may be contacted for help. Encourage questions from the learner/worker.

E. **Check back with the learner/worker as necessary to observe incorrect or unnecessary practices.**

F. **Select effective teaching methods for training.**

1. **The discussion method.** The discussion method can foster learning, provided the instructor is a good leader of group discussion. Group discussions provide for better trainee involvement, and tend to stimulate and reinforce learning. However, the instructor is responsible for introducing the subject and directing the discussion by asking leading and pertinent questions. Due to the short duration of most industry services programs, care must be taken to center the discussion around critical training needs. It is the responsibility of the instructor to skillfully suppress those who might monopolize the discussion while encouraging others to participate.

2. **The audiovisual method.** Some of the more effective audiovisual aids used in industry training programs include videotapes, illustrated training manuals, slide presentations, overhead transparencies, work-station layouts, and sound motion pictures. Audiovisual aids which can best teach the tasks or topics covered in the curriculum should be selected or developed. In order to effectively use audiovisual materials, the instructor must be familiar with their content and must be well prepared to use them.

VII. DIFFICULTIES TO OVERCOME IN PRE-EMPLOYMENT AND IN-PLANT TRAINING

A. **Confusion over complex details**

B. **Understanding the performance objectives**

C. **Unlearning bad habits**

D. **Catching the "knack"**

E. **Getting the "feel"**

F. **Developing speed and ease**

G. **Overlooking parts of tasks**

H. **Wandering attention**

I. **Inability to learn from mistakes**

J. **Attempts to perform tasks own way**

K. **Lack of interest in job**

L. **Inability to adapt to job**

VIII. SPECIAL IN-PLANT TRAINING CONSIDERATIONS

A. Multiple numbers of workers to be trained in the plant for new production jobs. The technique of in-plant training is usually one-on-one instruction. However, several workers may be hired for assembly-line production. Each worker must receive training before assembly-line production can proceed. Yet, all cannot receive instruction simultaneously. The results of downtime can be very costly, and worker morale may be lowered if training is not efficiently planned and managed. The following approach to training is recommended for this situation:

1. Obtain as many competent instructors as possible for the initial training thrust.
2. Review each trainee's interview and application records. The review should focus on identifying the skills and personal characteristics of each learner prior to instruction.
3. Present flow of work on assembly line to entire group.
4. Assign work station to each worker.
5. Provide written performance guide (steps of procedure) information to each worker.
6. Identify workers to be trained first. While training these workers, instruct other workers to read performance guides and related job information. Do not permit machine operation before instructions have been provided.
7. Present information and demonstrate the performance of each task at each work station. Permit each worker to practice the task under supervision and without supervision. Try not to leave any worker alone without instructions for more than 15 minutes.
8. If a conveyor system is used, start conveyor and gradually increase speed as workers increase production speed. Note bottlenecks and breakdowns in work performance. Provide additional instruction as needed. Shift workers to other tasks when feasible to increase rates of production.

B. New employee, old job. The approach to in-plant training for replacement personnel will be similar to training multiple numbers of new workers for new jobs. Although the trainees may be few in number, the training must be scheduled without interference with production activities. The supervisor must be prepared to:

present detailed information about the tasks to be performed; demonstrate task performance using the proper tools, equipment, supplies and techniques; and monitor the practice of the tasks by the workers.

C. **Old employee, new job**. The transferral of employees into new jobs, or upgrading employees in new production techniques must be approached from the point of view that the employee has a personal advantage as a result of training. Past work experience must not be taken for granted. If experience is an asset, the training should cover more ground in a shorter period of time. However, the supervisor must take into account all the details which will help the worker to obtain maximum production in as short a period of time as possible.

IX. EVALUATING IN-PLANT TRAINING

The supervisor must be able to determine whether the workers are performing the tasks exactly as intended and within the specified time period. This can only be accomplished by observing the workers while the tasks are performed, and by checking the products. It is impossible for workers to know whether the tasks have been performed correctly without proper instructions on the exact procedures and performance standards. Training should not be terminated until the workers have performed the tasks according to the standards identified. Performance objectives and standards should be clearly specified **before** training begins so that the supervisor and the worker understand the training and performance requirements. Refer to module number VIII-D, **Developing Performance Tests**, for additional information for evaluating pre-employment and in-plant training programs.

X. RECORDING TASK PERFORMANCE AND FOLLOW-UP TRAINING INFORMATION

A record should be made of the training required for employment and advancement. These records should show the step-by-step training program needed. The records should note the anticipated date for training, and the agency or person responsible for providing the training.

It is very important that an accurate record be kept on the performance achievements of each learner/worker counseled. Correct information must be available as guidance material.

Of course, flexibility in the training schedules should be maintained. Follow-up information about the progress of the learner/worker may dictate the need for additional training, or the deletion of requirements when the worker has achieved competencies through some other method.

XI. MOTIVATING PEOPLE TO DESIRE TRAINING

Individuals must be able to recognize the worth of training. There must be a reward for training and correct job performance. A job bid program has been successfully implemented in many industries. In this program, workers may opt for higher skilled and higher paying jobs, with the condition that they successfully complete specified training activities.

"Success" is a key factor in motivating people to continuously strive toward higher achievements. A success and reward plan, if implemented, must be clearly established which directs the learner/worker in training for upward mobility.

XII. TOPICS WHICH MAY BE COVERED DURING ORIENTATION TRAINING

Orientation training would normally occur before the applicants are hired by the client company. One must bear in mind that the trainees will be adults. All will have a limited amount of time. Therefore, the orientation should include only the essential information which will enable the applicants to make an intelligent choice about employment. The following topics are generally considered to be important ones to the applicants. The agency which is usually responsible for each topic is also given.

	TOPIC	RESPONSIBLE AGENCY
A.	Explanation of the industry services program	State division of vocational-technical education and training institution
B.	Description of the client company	Client company
C.	Contributions the client company will make to the community	Local industrial development group and client company

	TOPIC	RESPONSIBLE AGENCY
D.	Purpose of the training program	Training institution
E.	Orientation to the industry products	Training institution and client company
F.	Orientation to the industry processes	Training institution and client company
G.	Orientation to industry equipment, tools, and supplies	Training institution and client company
H.	Orientation to industry work standards	Training institution and client company
I.	Orientation to industry worker benefits	Training institution and client company
J.	Orientation to industry work conditions	Training institution and client company
K.	Human relations	Training institution and state employment service
L.	Economics of industry	Training institution and client company
M.	Industry production line communication and record system	Client company

XIII. TOPICS WHICH MAY BE COVERED DURING PRE-EMPLOYMENT SKILL DEVELOPMENT TRAINING

Usually, basic production skills are developed during the pre-employment training period. The following topics cover some of the skill areas which might be included during the pre-employment training period. It should be emphasized that complete production training has been provided for some companies during the pre-employment training period. In such cases, a complete range of equipment, tools, and supplies have been made available by the industry for use in the training program.

A. Blueprint reading

B. Assembly drawings

C. Basic and technical math

D. Measurement

E. Electricity

F. Hydraulics

G. Pneumatics

H. Mechanics

I. Assembly of parts and subassemblies

J. Use of tools and equipment

XIV. INSTRUCTION DURING IN-PLANT TRAINING

Work station production skills are emphasized during the in-plant training. In-plant training will focus on the following aspects of production:

A. Assigning workers to work stations

B. Preparing equipment, tools, and supplies for production

C. Practicing equipment operations

D. Practicing economy of motion techniques

E. Practicing manufacturing, assembling, and testing procedures

F. Making corrections in line production and testing operations

G. Reassigning workers to appropriate work stations

*Continue this learning activity by taking the **Learner Self-Test** which follows.

LEARNER SELF-TEST

This is a checkpoint knowledge test needed before the practice of assisting in training. Follow the instructions given with each item. Check your answers with the **Answers to Self-Test** which follow. If you fail to complete all items correctly, you may want to refer back to parts of the module information.

1. Skills are best learned on the job without instructions from the supervisor. (Indicate true or false.) _____

2. Which one of the following is **not** a characteristic of in-plant training?

   a. Training is provided by the supervisor on the equipment used in production.

   b. The same instruction is provided to all workers.

   c. Training is provided on the actual equipment used in production.

   d. Training is largely one-on-one.

3. List four steps to be taken in preparing for pre-employment and in-plant training.

   a.

   b.

   c.

   d.

4. List four steps to be taken in conducting pre-employment and in-plant training.

   a.

   b.

   c.

   d.

5. _____ _____ and _____ should be clearly specified **before** training begins.

6. List two types of records relating to training which should be on file for each employee.

   a.

   b.

7. _____ is the key factor in motivating people to strive toward higher achievements.

8. Which one of the following topics would least likely be covered during pre-employment training? Circle your answer.

   a. Practicing economy of motion techniques
   b. Overview of industry production processes
   c. Explanation of company fringe benefits
   d. Explanation of industry products

9. Which of the following topics would probably not be covered during the pre-employment skill development period?

   a. Blueprint reading
   b. Reading measuring instruments
   c. Contributions the client company will make to the community
   d. Use of tools, supplies, and equipment

ANSWERS TO SELF-TEST

1. False
2. b.
3. Any four of the following:
   a. Develop a training time schedule.
   b. Break down the tasks.
   c. Identify standards of performance.
   d. Prepare the materials to be used during instruction.
   e. Supply the work station.
   f. Arrange the work station.
4. Any four of the following:
   a. Prepare the worker.
   b. Demonstrate the task.
   c. Permit worker to practice the task with supervision.
   d. Permit worker to practice the task without supervision.
   e. Check back with the worker when necessary.
   f. Allow time for discussion.
5. Performance objectives and standards
6. a. Skills (tasks) accomplished
   b. Skills (tasks) to be accomplished
7. Success
8. a.
9. c.

*Proceed to the next learning activity for assisting in providing training in a practice situation.

LEARNING ACTIVITY II: PRACTICE PERFORMANCE

You will be required to perform written exercises relating to training. You may wish to read the references cited in the section on supplementary teaching/learning aids. You must read the **Case Study Information** presented in Appendix D. You also must complete the **Planning Worksheet** shown in Appendix E. Proper completion of the worksheet will provide evidence of competency of assisting in training in a practice situation. You will be evaluating your practice performance in assisting in providing training using the **Performance Checklist** from Appendix A-1.

I. Read the **Case Study Information** presented in Appendix D. Assume that the plant referred to in the case study has started up production operations and has begun in-plant training. You have the responsibility of assisting in providing that training.

II. Using the case study information and the contents of this module, develop a plan for assisting in providing in-plant training. Your plan must consist of accurate and comprehensive answers to the questions presented in the **Planning Worksheet**.

III. Use the **Performance Checklist** from Appendix A-1 to check your competency in assisting in providing training in the practice situation. For satisfactory performance, all items on the checklist must be checked "yes."

*Completion of the previous learning experience should have prepared you for assisting in providing training in a real work situation. Proceed to the **Check-Out Activity**.

21

CHECK-OUT ACTIVITY: PERFORMANCE IN REAL WORK SITUATION

The activity which follows is intended to be conducted in an actual work situation. It may be performed without completing the two learning activities, if you already have the knowledge and skills to do so.

You must assist in providing pre-employment and in-plant training for an industry in your community. In order to complete this assignment, you must perform the following tasks: obtain background information on each learner/worker, counsel with the trainees about work responsibilities and opportunities, develop a training time schedule; acquire instructional resources; assist in preparing for training; assist in providing instruction; assist in evaluating learners/workers; maintain records of achievements; and assist in making adjustments in training activities. Your performance will be judged by your instructor or supervisor using a checklist. All items on the **Performance Checklist** (Appendix A-2) must be rated "yes."

*After completing the **Check-Out Activity**, you may select another module for study. Your instructor or supervisor may be contacted if you have any difficulty in selecting a module.

APPENDIX A-1

PERFORMANCE CHECKLIST
(To be used in practice situation)

Assisting in providing training.

INSTRUCTIONS: If the performance is satisfactory, write YES in the space provided. If the performance is unsatisfactory, write NO in the space. Each item must be rated "yes" for satisfactory task performance.

Did the plan developed by the learner/worker provide for the following: ☐

1. Assigning tentative training stations to each worker on the basis of available information? ☐

2. Counseling each worker concerning work station assignment? ☐

3. Developing a training time schedule for each worker? ☐

4. Preparing detailed breakdown of task procedure, task information, and quality standards to be presented? ☐

5. Preparing work station with needed instructional materials? ☐

6. Providing instruction on training materials and requirements? ☐

7. Assembling workers at production line and providing instruction on the manufacturing process? ☐

8. Positioning workers at assigned work stations, and indicating who will receive instruction first? ☐

APPENDIX A-1

PERFORMANCE CHECKLIST (continued)

INSTRUCTIONS: If the performance is satisfactory, write YES in the space provided. If the performance is unsatisfactory, write NO in the space. Each item must be rated "yes" for satisfactory task performance.

9. Checking with each learner/worker periodically until the desired competency has been reached? ☐

10. Recording the progress of each learner/worker and noting worker deficiencies which will require further training? ☐

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APPENDIX A-2

PERFORMANCE CHECKLIST

(To be used in real work situation)

Assisting in providing pre-employment and in-plant training.

INSTRUCTIONS: If the performance is satisfactory, write YES in the space provided If the performance is unsatisfactory, write NO in the space. Each item must be rated "yes" for satisfactory task performance.

1. Workers were able to accomplish the objectives after instruction. ☐
2. A steady improvement in knowledge and skills on a day-to-day basis was observable. ☐
3. Worker attitudes toward training remained positive. ☐
4. Worker morale remained high throughout the training period. ☐
5. There was relatively little lag in training due to lack of planning and organization. ☐
6. There were no accidents due to lack of instructions. ☐
7. The quality of finished products was high. ☐

☐

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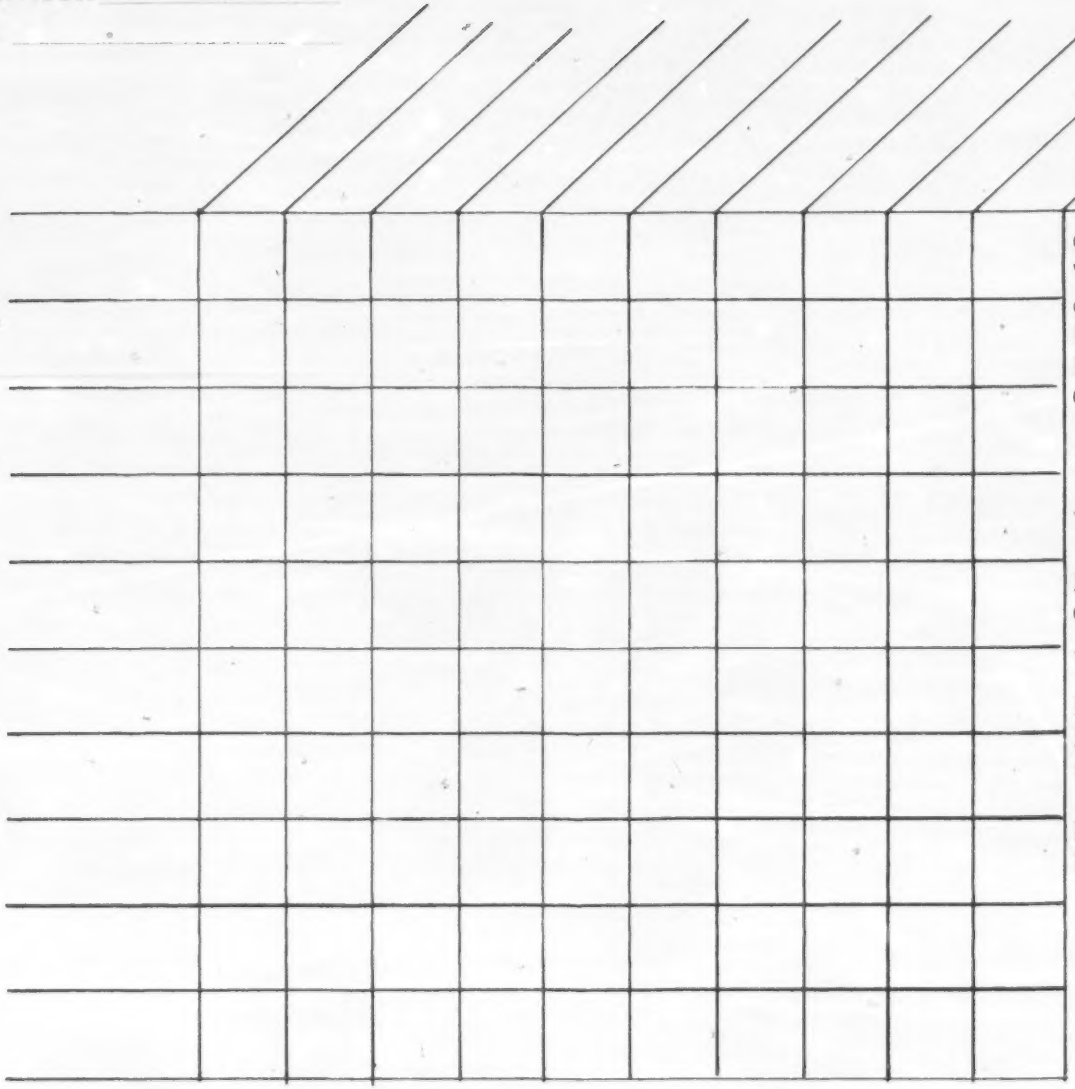
APPENDIX B
TIME TABLE–IN-PLANT TRAINING

DEPARTMENT _____

SUPERVISOR _____

DATE _____



Consider:
WHO should be trained? For WHICH job? By WHAT date?
If workers do a variety of things, list jobs workers do.
If workers all do same thing, list headings by:
Classifications
or
Level of Skill
or
Types of Machines

Review Categories:
CHANGES:
Absences, Separations, Transfers, Promotions

PERFORMANCE:
Excess rejects, rework and scrap, injuries, damage to equipment, etc.

PRODUCTION:
Meeting quotas, anticipated increases

APPENDIX C

INSTRUCTOR'S TASK BREAKDOWN SHEET

PART _____ TASK _____

STEPS—"Do" items—things which advance the job. **Step** begins with action word—'Attach,' 'Make,' 'Insert,' 'Assemble,' 'Place,' etc.	**KEYPOINTS**—**How** of the step. Key to its "right doing." Anything that will **MAKE OR BREAK THE TASK, INJURE THE WORKER, OR MAKE THE TASK EASIER TO PERFORM.**

APPENDIX D

CASE STUDY INFORMATION

A company which will manufacture custom valves is locating in the community. The valves manufactured by the company serve a number of applications. A high percentage of the valves manufactured by the company will be used by the oil and chemical industries. The average size valves are from 2″ to 24″ in diameter and are mostly of the knife gate, wedge gate, and the butterfly design.

The manufacture of the valves involves such operations as shearing, welding, machine forming, finishing, and testing. Workers involved in these operations must be highly skilled in the performance of their jobs.

The plant will start production with about 35 pretrained workers. The initial production work will involve assemblying premachined parts. As the employees become more skilled in the various machining operations, the plant will gradually become involved in fabrication of its own parts. Eventually, the plant will employ approximately 125 persons.

Due to the nature of the work involved, a certain amount of in-plant, one-on-one training will be necessary. The following procedure has been established:

1. Orientation will cover an overview of the company's history, products, and potential for future growth.
2. Attitude training will be accomplished by use of videotapes and other audio and visual aids.
3. Safety training will be conducted by a representative of the state board of health.
4. Welding training will be conducted in the local vocational facility by one of the local welding instructors.
5. Machining, which is a very important phase of the training, will include basic principles of machine tool operation, nomenclature of tools, and symbols used in the machining trade. The actual training on specific machines will be conducted in the main plant by specially trained supervisors.
6. Blueprint reading is a skill that must be possessed by all persons who are interested in layout, fabrication, machining, and other areas.

7. Finishing and testing will also be included in the instruction.
8. Specialized training utilizing the one-on-one technique will be employed. All specialized training will be conducted by plant representatives.

The initial training program will be broken down into three phases as follows:

1. Welding, 4 weeks
2. Orientation, 3 weeks
3. Blueprint reading and layout, 4 weeks

It is anticipated that three different groups of trainees will complete the training program before the plant reaches full production.

The following agencies are involved in the training program:

1. The state employment service will be responsible for: (1) taking applications; (2) interviewing and screening; and (3) testing and referring applicants to the training program.
2. The division of vocational and technical education will be responsible for the overall coordination of the training program.
3. The research and curriculum unit will assist in the selection of materials to be used in the training program.
4. The local vocational-technical education complex will provide the facilities and the necessary assistance for carrying out the training within these facilities.
5. The client company will assist in the overall planning and execution of the training program. Some of the client company's specific responsibilities are: (1) selecting instructors; (2) providing equipment; (3) providing materials; and (4) selecting trainees for employment.

The industry services leader will be involved in all phases of the training program.

APPENDIX E

PLANNING WORKSHEET

Directions: Describe your plans for completing the following phases of work:

1. Compiling applications, interview records, and test data on each worker.

2. Preparing forms and recording information and data on each worker.

3. Assigning tentative training objectives to each worker on the basis of information available.

4. Counseling with each worker concerning training objectives.

5. Developing a training time schedule, pinpointing worker assignments, dates and time for training, and sequence for training. A sample training time schedule chart is presented in Appendix B.

6. Preparing detailed breakdown of task procedures, task information, and quality standards to be presented. A sample task breakdown sheet is shown in Appendix C.

7. Preparing training site with needed instructional materials. If possible, plan to have study materials available for use by workers awaiting instruction. Post sketches, drawings, charts, and photographs at the training station for reference by the learner/worker.

8. Assembling all trainees in conference room or classroom.

9. Providing instruction on training procedures and safety requirements.

10. Assembling trainees at production line and providing orientation instruction on the manufacturing processes.

11. Positioning trainees at assigned training stations, and indicating who will receive instruction first.

12. Instructing trainees awaiting instruction to review written task descriptions provided at the training station, and to become familiar with the tools and supplies arranged at the training station. Caution trainees about the use of tools and equipment without proper instruction.

13. Demonstrating the task performance steps for each trainee.

14. Observing each trainee as initial attempts are made to practice the task, first with supervision, and then without supervision.

15. Continuing demonstrations and checks until each trainee has received instructions and performed the tasks.

16. Checking back with each trainee periodically until the desired competencies have been reached.

17. Recording the progress of each trainee and noting deficiencies which will require further training.

18. Adjusting conveyor/assembly-line system to the pace of the trainees until trainees learn to work at faster pace.

19. Noting deficiencies in work through observations on the assembly line, and through quality control checks.

20. Providing additional training and/or rotating workers on the assembly line until workers and jobs are matched, and performance standards are met.

An alternate approach to training several new workers for new jobs is to sequence the hiring of employees, call one or two workers on the day scheduled for training, and train each worker thoroughly before calling other workers.

LIST OF INDUSTRY SERVICES LEADERSHIP DEVELOPMENT MODULES

I. **Orientation to Industry Services**

- A. Introduction to Industry Services
- B. Industry Services Leadership Development Program: Guide for Using the Self-Paced Instructional Modules

II. **Establishing Contacts and Relationships**

- A. Speaking to Industrial and Community Groups
- B. Writing Articles for News Media
- C. Identifying Functions of Agencies Involved in Industry Services
- D. Developing a Brochure for Industry Services

III. **Obtaining Agreements**

- A. Developing Training Agreements
- B. Developing a Lead-time Schedule
- C. Interpreting Legislation Related to Industry Services

IV. **Identifying Training Needs**

- A. Collecting Framework Production and Training Information
- B. Selecting Types of Training Programs
- C. Preparing a Budget for an Industry Services Project

V. **Acquiring Resources**

- A. Selecting Instructors for Industry Services
- B. Securing a Training Site
- C. Securing Training Equipment, Tools, and Supplies

VI. **Training Instructors for Industry Services**

Training Instructors for Industry Services

VII. **Preparing for Training**

- A. Adapting the Training Site to Training Needs
- B. Evaluating Safety Conditions at Training Sites
- C. Announcing the Opening of a Training Program

VIII. **Preparing Training Materials**

- A. Conducting a Task Analysis
- B. Developing Performance Objectives
- C. Determining Types of Instructional Methods and Media
- D. Developing Performance Tests
- E. Developing Training Manuals
- F. Preparing Videotapes for an Industry Services Program
- G. Setting Up Learning Centers for Industry Services Programs

IX. **Selecting Candidates**

Developing a Plan for Testing and Counseling Applicants for a Training Program

X. **Monitoring Training Programs**

- A. Assisting in Providing Pre-Employment and In-Plant Training
- B. Developing a Procedure for Keeping Participating Agencies Informed About Training Program Activities
- C. Monitoring Training Programs for Progress and Expenditures

XI. **Closing Training Programs**

Closing a Training Program

XII. **Placing Program Participants**

Developing a Plan for Placing Graduates of a Pre-Employment Training Program

XIII. **Evaluating Industry Services Programs**

Evaluating Industry Services Programs

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